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(54) Liquid composition laser marking article and marking process

(57) This invention relates to a liquid composition comprising an energy beam-curable resin, a leuco dye and a developer and has a viscosity of not more than 20 cps as measured by an E type viscometer at 60°C, a laser marking article having a cured film of the liquid composition, a process for producing a laser marking article, characterized by coating the liquid composition on the surface of an article by a spray coating method and then irradiating the coated article with an energy beam except laser, and a laser marking process characterized by irradiating the cured film layer formed on an article with a laser beam. According to this invention, there is obtained an energy beam-curable, liquid composition for laser marking suitable for spray coating and gravure printing without using a solvent or dispersing agent, and the cured film of this liquid composition has little discoloration of the ground, a good adhesiveness to substrate, and when it is irradiated with a laser beam, the portion irradiated develops a vivid black color which is excellent in fastness.

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EUROPEAN SEARCH REPORT

Application Number
EP 97 10 3075

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
D,X	WO 96 00262 A (NIPPON KAYAKU)	1-14, 17-20 15,16	B41M5/36 G03F7/105
Y	* page 4, line 1 - line 10 * * page 6, line 12 - page 7, line 17 * * page 10, line 19 - line 21 * * page 15, line 23 - page 16, line 19 * * page 19, line 10 - page 20, line 20 *		
Y	EP 0 659 583 A (NIPPON KAYAKU) * page 3, line 45 - line 46 * * page 4, line 10 - line 19 * * page 5, line 57 - page 6, line 8 * * page 6, line 51 - page 7, line 2 * * page 8, line 49 - line 53; claim 1 *	15,16	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B41M G03F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 31 October 1997	Examiner Magrizos, S
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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